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SMALL-TIME ACCOUNTING: A 19TH CENTURY MEAT MERCHANT IN MAINE

Abstract: The journal of Amos K. Hersey, a 19th century meat merchant from Pembroke, Maine is examined in this paper. The accounting system used by Hersey is analyzed and compared with contemporary prescriptions for account keeping. The paper seeks to contribute to the emerging literature on the history of accounting among ordinary people. It shows how the accounts kept by Hersey reflect and illuminate several features of a local economy and society.

Largely missing from historical accounting literature are the accounts of ordinary people, those operating a sole proprietorship or simply keeping personal records of receipts and expenditures. Rather, we tend to explore the accounting records of large firms or the practices of entire cultures. In this respect, accounting historians mirror the concerns of accounting researchers in general, who also concentrate their efforts on understanding the role of accounting in the economy as a whole and emphasizing the relationship of accounting with big business and economics [Walker and Llewellyn, 2000]. Yet, there is a case to be made for studying the accounting practices of the small business, the family, and the home. This more mundane application of accounting practices may help to shed light on larger social and cultural issues. For example, Walker's [1999] work suggested that private (domestic) accountings may help maintain established social structures. Historical studies of micro-businesses allow us to achieve a better understanding of business and daily life in the past. For example, identifying what is accounted for reveals what was important or respectable: "In 1782, Jacob Bailey, characterized the Yankee Farmer (sic) as a person 'able with his own industry to make a comfortable living,

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besides discharging his tax bill, paying the midwife, and providing a plentiful and greasy dinner on Thanksgiving” [Ulrich, 1990, p. 89].

To be sure, the line differentiating the accounts of an “ordinary” person from those of a business is a fuzzy one. But it is fair to say that one is more likely to find an article on the accounting and control systems in use at General Motors in the 1950s than one about John McKay, dentist, East Washau, North Dakota, 1924-1932. We classify as “ordinary” accounts kept by a single person or family for personal reasons rather than to satisfy external users or non-family partners.

There have been some exceptions to the exclusion of the records of individuals from accounting research, including studies of the records of Quakers in Massachusetts [Fuglister and Bloom, 1991] and the ledger of Giacomo Badoer [Var, 1976]. Indeed, several academics have suggested recently that accounting research be expanded to include studies of the more everyday and small-business aspects of accounting and of its relationship to broader culture [Hopwood, 1994; Boden, 1998; Walker and Llewellyn, 2000]. Personal accounts may open a window on how a person lived and how life was organized. The frame may be crude, but it is not without significance. These accounts, supported by other sources, provide a springboard for the development of a larger history of a person and of his/her town and times, as well as insights into the individual’s financial success or failure and place in wider society.

The current research was based on a journal¹ kept by Amos K. Hersey of Pembroke, Maine. Hersey’s journal primarily documents the years during which he was a meat merchant in Pembroke and is a record not only of his primary business but also of his increasing financial distress, reflecting the declining fortunes of Pembroke itself during the late 19th century. The journal contains accountings for several aspects of the owner’s business and even of his personal life. This study builds on the transactions recorded in the journal by correlating them with information gleaned from other sources, such as history books, the U.S. census, and the knowledge of local amateur historians.

The paper begins with a review of other accounting studies that have attempted to relate the accounting records of everyday people to the economy and society in which they conducted

¹ The term “journal” is used generally here. It means a bound book in which account records appear. This is not a formal accounting journal with debits and credits.

their business. The Hersey story follows, and the paper concludes with a brief assessment of what such studies have to offer.

LITERATURE REVIEW

Personal or small business accounting research is rare. The few exceptions illustrate two broad outcomes of micro-accounting research. One is to learn how accounting was used in decision making and how transactions were recorded. The other is to use the accounting records to learn more about the world in which they were created. Accounts may be one of the few surviving records available for examining an entire culture or community and, as such, provide an important first step for further research into that world.

One example of relating accounting to the people who used it is a study by Fuglister and Bloom [1991] of the accounting records of the Quakers in West Falmouth, Massachusetts. The authors associated the simplicity of the Quaker's single-entry accounting with that of the Quaker lifestyle. For example, Fuglister and Bloom stated that Quakers used an "X" to indicate settlement of previously recorded debts and that non-Quakers did not. The authors believed this to be evidence of the Quakers' simplicity and honesty. Though the authors' conclusion is plausible, we believe this practice was common to others besides the Quakers. For example, the day book of a blacksmith in 19th century Maine,² and the diary of Martha Ballard, a 17th century Maine midwife [Ulrich, 1991], both show that an "X" indicated the settlement in cash or in kind (barter transactions were common) of services previously rendered or debts incurred. The "X" was used among people whose business operations were so small that they did not keep formal records of cash but did need to keep track of amounts owed to them or to others. Upon settlement of a receivable or payable, the entry was simply checked or "Xed" off. Further confirmation of this can be found in the section on bookkeeping in *Business Man's Adviser* [1853, p. 122]: "The first book is the day book . . . When an entry is made in the Day Book which is settled by cash before it is posted in the ledger (sic), the posting may be omitted, and 'paid' written against the charge . . ." An "X" could easily be substituted for the word "Paid."

²This 1872 day book of a Maine blacksmith is located in the Special Collections Department of the University of Maine's Fogler Library.

Fuglister and Bloom [1991] noted another an interesting practice. The Quakers kept the accounting records of different business-like activities in separate books even if the activities took place in the same household. Thus, furniture-making accounts were kept separate from other family enterprises such as fishing. The midwifery accounts of Martha Ballard [Ulrich, 1991] were also kept separate from the accounts of her husband. We might speculate that it was common to keep the accounts of each individual activity separate from others. To take it a step further, was it also common knowledge that a proper accounting was a necessary condition for financial success? If so, this knowledge is likely to have come from the many books available on bookkeeping.³

Another example of an historical study of a small business enterprise is Tyson's [1988] research on J. Henry Rushton's boat-building enterprise. This concentrated on the uses of cost accounting and its relationship to prices. In his "Books of Knowledge," Rushton recorded detailed cost information, including both direct costs and some allocations of overhead costs. As competition and an economic downturn forced prices down, this cost information became more important to the entrepreneur. An important piece of American history that is illuminated through this study is the effect on the small independent businessman of the rise of mass-produced and mass-distributed products. Rushton, who began by competing the basis of purely on quality, was eventually forced to produce some lower-quality, lower-priced models in order to stay in business.

There have also been studies of the accountings of individuals. These studies resemble the current study and those mentioned above in that they use accounting to understand another culture, in this case removed in kind, but not in time. Acheson [1996], an anthropologist, has studied household accounts in Cuanajo, Michoacan, Mexico, an Indian pueblo. He found that successful (a highly relative term) households tended to agree (negotiate) on family goals and then maintain a variety of liquid funds dedicated to the achievement of those goals. When money was available, families allocated it to pools designated for specific purposes.⁴ The family placed money into a general fund

³The *Accountants' Index* of 1920 [American Institute of Accountants, 1921] devoted 23 pages to bookkeeping books, many of which were published prior to 1880.

⁴These pools were not bank accounts. They might have been money kept in separate envelopes and retained by the responsible family member. Honor kept the hands of other family members out of that envelope.

(Acheson's term) for household needs such as food. Personal funds were separated and kept for the needs and desires of an individual and no one else. Obligated funds were segregated and used only for the designated purposes. Most successful households maintained a number of obligated funds. Since many of the people in Michoacan made furniture, one obligated fund would be designated for purchasing wood. Another might be maintained for the repair and replacement of equipment. A wife with her own business would have her own obligated fund. In stark contrast, unsuccessful households tended to have only a single fund. When money was available, that fund, rather than being invested into the family business, might be raided for immediate desires. It appears that in this pueblo, budgeting and committing funds to specific purposes, in accord with negotiated family goals, led to relative financial success. And, as with the Quakers, the Indians also separated the accounting of different functions or entities for control purposes.

Carnegie [1995] examined 23 pastoral (sheep herding/shearing) operations in colonial Australia. He was interested in the use of ledgers, day books, volume records, and financial statements. Carnegie discussed various factors that might account for the adoption and the timing of the adoption of these records. The study revealed no evidence of unique accountings.

In another recent study that uses accounting as a reflection of a broader reality, Llewellyn and Walker [2000] examined accounting as practiced in the home, as well as the published recommendations for such practices, to investigate the marginalization of women and women's work. In the early part of the 20th century, women were encouraged to use budgets to control and monitor spending, to allocate disposable income to various activities, and even to engineer scientifically their cooking and cleaning chores to maximize efficiency and minimize waste [Walker, 1999]. Most of the accounting that was encouraged treated the home as a unit of consumption: an approach which ignored the value added of the work performed by the homemaker (usually a woman). Changes in social dynamics have begun to suggest the necessity of measuring the output that is produced in the home, leading some countries to attempt to place a value on that production [Walker and Llewellyn, 2000].

THE ACCOUNTS OF AMOS K. HERSEY

The current study is based on the journal of Amos Hersey. The journal is held in the Special Collections of the University of Maine's Fogler Library. Amos K. Hersey was born in Pembroke,

Maine in 1841. Hersey married Jane, an English immigrant, and had one daughter, Lydia A. in 1865. He died at age 78 in North Attleboro, Massachusetts having left Pembroke sometime around 1890. The journal contains a complete record of Hersey's business activities during the late 19th century. However, the manner in which those activities were recorded does not correspond to what one would expect based on bookkeeping manuals of the period. Hersey's surviving accounting records do not take the form of a day book, a ledger, or a cash book.

The Journal: Hersey adapted a preprinted journal for his own purposes. As preprinted, it is a sales journal. Each page has columns with the following headings: Name, Residence, Kind and Quantity, and Price (see Exhibit 1). Hersey ignored most of the preprinted headings, preferring to add columns and headings to suit his needs (note the handwritten additions in Exhibit 1 below). While the same preprinted headings appear throughout the journal, the uses to which the pages are dedicated vary widely.

EXHIBIT 1

Typical Journal Page with Preprinted and Added Headings

Date	NAME	Price	Residence	Kind and Quantity	Purpose of Use	Price	1855
March 13	J. C. Lupton	4 50 55 55	Pemb.	Beal 1	25 50 9 75	5 30	10
" 13	Brook	30 -	"	Skin 1	75	75	40
" 24	H. L. Lupton	4 75 72 65	Pembroke	Beal 1	25 72 10 125	7 20	2 60
"	J. H. Clegg in 6	4 00 60 35	"	"	60 10 125	6 60	2 40
"	C. W. Hersey	2 48 31 25	"	Hens 6	28 16	4 48	1 55
" 31	J. H. Lupton	4 38 39 25	"	Beal 1	30 65 10 125	6 30	2 32
"	H. L. Lupton	5 00 80 25	"	"	76 11 125	8 36	4 06
" 30	E. L. Lupton	3 60 64 -	Charlott	"	60 9 125	5 40	2 30
"	Slusack	3 00 66 26	Muddy 6	"	62 7 125	3 64	1 34
"	Rich	45 -	"	15 Skin 3	"	1 60	1 30
" 27	Boston	8 75 115 50	Edmunds 30	Shug 2	106 98 2 00	10 07	2 60
" 31	No. 1000	8 00 30 26	Weymouth 16	"	29 6 2 00	1 79	33
Apr 7	H. L. Lupton	5 50 87 62	Pembroke 30	Beal 1	25 84 11 137	10 61	1 66
"	A. L. Lupton	70 - 05	Bury 10	Stain 3	"	1 30	40
" 14	"	4 50 76 50	"	30 Beal 1	67 11 137	8 96	3 66
"	H. L. Lupton	6 60 76 50	Pembroke 30	Beal 1	25 85 11 137	10 72	4 17
"	S. L. Lupton	88 -	"	18 Skin 1	"	76	18
"	E. L. Lupton	4 50 76 50	Charlott 30	Beal 1	70 105 137	8 72	3 42
" 14	Arthur Lupton	5 00 70 26	Pembroke	"	1 67 65 10 125	7 75	1 70
"	S. L. Lupton	3 25 60	"	"	48 75 128	5 69	1 68
"	Beal	24 21 104 620	470	13	180 119 23 23	113 23 49 42	23

Source: Hersey Journal, p. 1.

At the beginning of the journal and continuing for 37 pages is a chronological record of completed transactions (purchase and sale) in meat and several other commodities. The journal includes almost 700 entries from March 1883 to May 1887, pertaining to purchases and sales of veal, hides, skin, sheep, chicks, hens, turkeys, partridges, geese, pelts, and eggs. Based on the number and completeness of entries, meat and related products seems to have been Hersey's major business endeavor.

Later pages contain entries for 1891, 1892, 1896, and 1899, and reflect other ventures undertaken after the apparent failure of the meat business. None of these accounts occupies more than a few pages of the journal. These other activities include the purchase and use of a boat, reflected on a page entitled "Loss on are (sic) Vessle (sic)," records of a short-lived egg busi-

EXHIBIT 2

Transactions in Wool: Facing Pages

'91						Dr.
Date.	NAME.	Residence.	Kind and Quantity.	Purpose of Use.	Price.	
Dec 11	J. M. Johnson	4121 E	Wool @	288	100.28	
12	Star Flushing	Frighth	20 Bags	500	10.00	
11	J. M. Johnson			500	6.00	
Jan 7		4288	Wool	28	10.72	
			20 Bags	30	6.00	
	Star Flushing	Frighth		500	10.00	
27	J. M. Johnson	2124	Wool	288	5.31	
				268	5.34	
28	Star Flushing	Frighth	20 Bags	500	6.00	
17	Hersey's sheep			500	10.00	
	F. A. Wyman	60		100	2.00	
May 9		Carriage			27.78	
		Commission		8%	2.18	
		Scouring			108.45	
		Interest			49.93	
		Percentage		1%	66.78	
					3732.29	

'91						Cr.
Date.	NAME.	Residence.	Kind and Quantity.	Purpose of Use.	Price.	
May 9	F. A. Wyman	1005 E	Wool @	448	44.20	
		87	Sacks	288	21.78	
					4447.27	
					3732.29	
					4149.8	
Balance due May 9 '91						

Source: Hersey Journal, pp. 53-54

ness in 1892 (with only six entries), records of a wool business also in 1892, records of fines paid (labeled "Fines and Law Expense" related to the apparent seizure of deer shot out of season), an "Account of Land and Wharf" in 1896, and even a page entitled "Losses in Life," which records what appear to be loans which were never repaid along with some other losses including the ultimate loss on the boat mentioned earlier. Most of these entries are simple listings of costs, but some records contain columns labeled "DR" and "CR," such as the two facing pages recording wool transactions shown in Exhibit 2.

Note that all revenues and expenses related to specific ventures were kept together. For example, Hersey did not mix ship expenses with wool expenses. This reflects an understanding that only by separating unrelated costs and revenues can one determine the success or failure of a venture. There is also a page (Exhibit 3) where Hersey summarized all the veal, turkey, chicken, etc. data separately by year. He was then able to see how many calves were butchered and sold, how much he paid in total for the calves and other expenses, and how much, in total,

EXHIBIT 3 Yearly Summary of Transactions

Date.	NAME.	Residence.						Kind and Quantity.		Purpose of Use.				Price.	
		Hamble	Highgate	Spring	Boonville	On the Hill	On the Hill	On the Hill	On the Hill	On the Hill	On the Hill	On the Hill	On the Hill	On the Hill	On the Hill
1880	Veal	54	3746	1638	1620	3128	97	40		247	26	584	78	10	107
	Ship	11	147	200	237	426	67	28		67	78	69	42	69	
	Chicken	81	714	162	615	506	174	157		77	77	87	76		8
	Chicken	414	1612	620	1032	1293	178	273		148	97	237	68		48
	Hens live	46	240	187	180	219	168			23	16	66	67		8
	Butter	11			23					2	10	4	27		1
	Butter	8	14			4	17			1	68	1	68		18
	Butter	11	644	145	216	639	612	65		31	11	41	54		7
	Butter	10		8	55					8	44	8	78		2
	Butter							46		571	95	440	87	49	181
1881	Veal	161	714	3778	4030	9384	98	273		662	53	1063	16	654	248
	Ship	4	162	15	11	16	16	06		10	00	12	66		2
	Chicken	57	613	220	320	384	18			56	02	68	78	177	6
	Butter	148		388	226			50		36	40	48	28		3
	Butter	717	2704	1470	476			163		84	67	75	21	588	
	Chicken	688	2777	112	1570	1968	16	24		244	36	360	28	17	70
	Butter	7	463	10	30	373	12			6	66	6	02	46	
	Butter	39	1710	238	613	1712	57	56		143	74	128	66		14
	Butter	11			65					3	10	6	16	10	2
	Butter	6	74	24	30	46	13			6	56	7	20		30
	Butter							578		121	12	2781	5	407	12

Source: Hersey Journal, p. 61

he received from the sale. He could then compare the relative value of dealing in veal, chickens and hides.

We now focus on the subject which dominates the journal: Hersey's meat business. These pages are not in double-entry format. Rather, they record on one line each, the purchase and sale of a commodity, along with expenditures related to the work. At the end of each line, a gross profit is computed on the completed transaction (refer to Exhibit 1). The transactions are listed in chronological order according to the date of purchase. The timing of the purchase and sale were closely related, not because the purchase price and the sale price are recorded simultaneously, as would seem the case at first since they are both recorded on the same line, but because meat could not keep long.

The journal records 37 pages of purchases and sales of mostly farm animals and hides. The bulk of the transactions (399) are purchases and sales of veal. Hersey bought the live animals from local farmers, butchered and skinned them, and sold the meat and skins. For each transaction, Hersey noted the date, the supplier's name, the weight of the animal, the purchase price per pound, the home town of the supplier, the freight, commission and cartage fees, the product and its quantity, the number of pounds after butchering, the selling price per pound, the price he received for the skin, and the (gross) profit on each sale. The profit equals the price per pound times the number of pounds, plus the price for the skin, less the price paid to the supplier (whose name and town are noted), less freight, less a commission, less cartage. The column titled "Whole Amount" later becomes the sum of both the price for the skin and the number of pounds times the price per pound, not just the number of pounds times the price per pound.

The format followed by Hersey for recording transactions does not correspond to that found in contemporary bookkeeping manuals. The closest to the columnar format used by Hersey was a "summary" account suggested for farmers [Bexell and Nichols, 1913] which did contain all expenses related to a category, such as wheat or horses, the related revenues and their sources, and a computation of profit or loss (see Exhibit 4). However, Hersey did not compute profit or loss for veal as a category as in this example, but rather profit or loss on each calf purchased. On the other hand, Exhibit 4 is similar to Hersey's consolidated page shown in Exhibit 3.

EXHIBIT 4 Farmer's Accounts

Live Stock Cost Summary, 1912

Stock	Total	Accounts Credited						
		Dr.	Invail 1911	Man labor	Team labor	Cash	Feed	Inter & Depec
Cattle & Dairy	4184	1940	560			19	1463.40	221.60
Horses	3025	90	150			120	593.90	212
Hogs	1937	40	565	180			86	53.40
Sheep	604	20	320	20		8	234	22.20
Poultry	577	18	171	25	120		246.35	14.75
Total								2.5

Illustration 39c

ANNUAL STATEMENT

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Live Stock Returns Summary 1912

Stock	Total	Accounts Debited						
		Cr.	Cash	Milk	Horse labor	Household	Manure	Invail. 1912
Cattle & Dairy	5281	10	2295	10	300	93	570	2080
Horses	3116	40	495		420	80	90	2025
Hogs	2492	50	750			52	50	150
Sheep	696	378				10		308
Poultry	1062	25	701			82	50	15
Total								183.75

Illustration 39d

Source: Bexell and Nichols [1913, pp. 158-9]

In a study covering the period 1300-1800, Yamey [2000] found that such gross profit computations were performed by some merchants. However, they were generally done for an entire category of goods, for a particular journey, or for a batch of goods. According to Bryant and Stratton [1863], recording gross profit on individual transactions was common practice in relation to the results of commission sales, although the format they displayed is still quite different from that employed by Hersey. The presentation in Exhibit 5 illustrates such a commission sale and the relevant computation of profit or loss for that particular sale. As a basis for comparison, Exhibits 6 and 7 are examples of

entries in a sales journal and a purchases journal (called a domestic invoice book), from Bryant and Stratton [1863, pp. 133, 137]. Note that here, no individual gross profits are calculated.

Exhibit 5 represents a complete record of a commission sale — it is an auxiliary record, created to compile information initially recorded elsewhere. Original transactions were recorded in the day book, the only accounting record legally admissible in court at the time [Bryant and Stratton, 1863, p. 11]. The sales price was charged to Charles Stetson. At the bottom, the \$4,000 is the cost of the flour, which will be remitted to the consignor

EXHIBIT 5					
Accounting for a Commission Sale					
Account Sales of 500 Bbls. Flour on joint % of Niles & Kinne and ourselves, each ½.					
1859					
Apr.	8	Sold Charles Stetson @ 30 days, on %, 500 bbls. Flour, @ \$9	4500		
		Charges.			
"	8	Storage and Advertising	\$20		
		Commission, 2½ % on \$4500	112.50		
		Our ½ net gain	183.75	316	25
				4183	75
		Invoice, 500 bbls. Flour, @ \$8	4000		
		½ net gain	183.75		
		Net proceeds as above	\$4183.75		
		E. E.			
		Due by Equation, May 6.			
		BRYANT & STRATTON,			
		per Packard.			
		NEW YORK, April 8, 1859.			

110

Source: Bryant and Stratton [1863, p. 110]

EXHIBIT 6					
Sales Book Entry:					
NEW YORK, JULY 1, 1860.					
		Gordon Bailey,	Buffalo, N. Y.		
205	50 ps. 9-8 Printed Jaconets, 2572 yds. @ 15c.	\$385.80			
208	60 ps. 9-8 10 R.&W. " 1509	" 10c. 150.95			
209	58 ps. " " 1455	" 10c. 145.50			
210	56 ps. " " 1394	" 15c. 209.10		891	35
	Note @ 8 months from July 1.				

Source: Bryant and Stratton [1863, p. 137]

EXHIBIT 7
Domestic Invoice Book (purchase) Entry
JULY 10, 1860.

		Amounts forward,	8 months.	1303	76	553	t
◇	John Walker & Co.,						
794	40 ps. Duck Drilling,	1411 ² @ 17c.	239.96				
800	40 " "	1389 ² 18	250.11				
834	36 Brown "	1415 ² 25	353.88				
704	42 W. B. Diaper,	2169 ¹ 7½	162.69			1006	
	Note @ 8 months from July 10.						

Source: Bryant and Stratton [1863, p. 133]

along with his half of the gain on sale. An interesting aspect of this form of presentation lies in understanding what happened to the "gross profit" (\$4,500 - \$4,000 = \$500). First, it is clear that this entire record was written down after the sale took place since the commission is computed on the sales price. The 2½% commission cannot be computed until the sale takes place. The fixed commission percentage creates an incentive for the consignee to sell the flour at the highest possible price. The gain, split between consignor and consignee, can only be computed after the sale and after subtracting the commission and the charge for storage and advertising. All of these events are recorded elsewhere in Bryant and Stratton's books, and they show that the "Charges" listed above all accrue to the consignee. They may include reimbursement for cash payments, but they are usually deductions for the consignee's services — storage, commission, and percent of gain. What this means is that the consignee, upon fixing the sale, deducts his commission, deducts an amount for storage and advertising which may or may not correspond to cash expenditures, and then splits the gain (or loss) with the consignor, finally remitting to him the cost of the flour and his half of the gain.

If we examine Hersey's journal with this in mind, it appears to be, or be similar to, a simple consignment sales book. It now appears that freight, cartage, and the commission, rather than being expenses that Hersey must necessarily pay, are amounts that he charges the seller of the animal. The profit or the loss is the amount remaining after the original cost of the animal and these additional charges have all been settled.

It is difficult to understand the freight and cartage charges even when we know they accrue to Hersey. The freight charge was usually present in the journal, though not always. Its amount at first appears to be approaching a step-fixed charge (25, 50, 55 cents). The most common charge is 25 cents. However, beginning in 1885, we begin to see odd-cent charges, like

37, 46, or 54 cents. The charge is not continuous and is not related to distance (town) or the size of the animal. There is a tendency for the charge to increase if the animal(s) is heavier, but there are too many exceptions to draw any firm conclusions on this point. There are also a number of transactions where no charge is listed, particularly as we approach the last year of the meat business.

One local account of life in Pembroke during the late 19th century mentions taking a calf to town and selling it to a store.⁵ If this was common, why would there be a freight charge for either party? Perhaps these are not freight charges at all but storage costs — an average, imputed charge for holding and feeding animals that cannot be slaughtered immediately. Perhaps it is a retention of profit as is the case in the consignor/consignee example. Or, is this a real fee paid to encourage people to sell their animals to Hersey rather than to another store? Although there does not appear to have been any other meat merchant in Pembroke, at least in 1883 and 1884, a general store might have been able to butcher its own meat. On the other hand, perhaps Hersey was paying a flat fee to someone to visit the farms to collect the calves. We can think of no compelling explanation for the freight charges that convincingly outweighs other possibilities.

The cartage charges in Hersey's journal are also puzzling. They are highly irregular ranging, when they do appear, from a high of fifty to a low of five cents. Cartage appears in 36% of the 1883 veal transactions, in 68% of the 1884 transactions, and in 12% of the 1885 transactions. The charge rarely appears with the other commodities. The irregular cartage charges *might* be occasioned when Hersey sold meat to other stores and paid for transportation rather than selling the meat from his own store.

Hersey's journal was not always completely or accurately maintained. Not everything listed above appears in every entry (see Exhibit 8). Often one or more of the fees disappear and, particularly toward the end of the recorded entries, carelessness, illness, or perhaps despair resulted in the omission of many of the transaction details. In addition, computational errors began to be made. In the early part of the journal it is easy to prove Hersey's calculation of gross profit, whereas at the end it is no longer always possible (for example, see lines 9 and 11 in Exhibit 8).

⁵The University of Maine has a number of the diaries of Willis Carter from 1881, the early 1900s, and the 1920s [Cage Box 67].

EXHIBIT 8

Examples of Errors and Losses

Date	NAME.	Price	Residence.	Kind and Quantity.	Purpose of Use	Price.
Apr. 21	Cass Calvin	5 50 80 72	Lubec	Feed 1 75 63 3	1 95 2 70	- 3 18
"	Epithel Allen	4 20 80 -	"	" 1 - 63 3	1 75 2 20	- 2 10
"	Bro Mrs.	4 20 80 65	"	" 1 - 63 3	1 75 2 70	- 1 85
"	Runway Frank	5 14 40	"	58 1/2 11	45 165	7 80 1 68
May 2	Woodsen Jim	7 00 70 1	Runway	5 " 17	64 165	10 89 2 54
"	Wilder Fred	5 35 -	"	60 " 9	42 -	6 93 9 8
"	Horsing Abr.	6 85	"	30 - 120	36 -	3 94 6 9
"	PH	5 80 30	"	Feed 1 75 74 7	8 18 3 93	13
"	"	" 30	"	" " 70 4	4 20 4 20	- 1 10
"	Smithson G	4 20 80	"	" " 50 6	3 80 3 70	- 5 3
"	Curley B H	4 20 80	"	" " 73 60 42	2 70 3 45	- 3 5
"	ff.	6 40 35	"	" " 67	3 12 3 77	- 1 52
"	Traden S.	33 04	"	Eggs 281	274 14	39 06 3 27
"	Leighton Hara	9 80 15	"	60 Hara 22	81 145	13 80 2 95
"	McKee John	7 00 20	"	14 " 14	60 -	10 00 2 21
"	Joyner	7 77 79	"	Eggs 85 -	- 15 -	12 75 2 19
"	Correll Geo	2 45 -	"	6 Hara 7	20 16	3 20 6 8
"	Coyne John	11 00 20	"	75 " 18	74 18 10	13 67 3 62
"	Leaning Clara	9 11 -	"	10 " 22	"	13 28 2 97
"	Hersey Bessie	2 70 25	"	30 Feed 1	60 7	4 20 4 95 1 40

Source: Hersey Journal, p. 35.

The distribution of Hersey's transactions in months and years can be seen in Table 1. The table is designed to mirror Hersey's productive year which began in October and ended in late May. No transactions occur in July and August and very few in either June or September. The most active months are March and April, springtime when calves and other animals are born. In the dormant winter months of January and February there were also few transactions.

TABLE 1
Distribution of Transactions Across Months

Months	1883	1883-4	1884-5	1885-6	1886-7	Totals
September	8	9	17			
October	Na*	21	33	3	57	
November	Na	37	25	62		
December	Na	23	20	43		
January	Na	1	2	3		
February	Na	7	9	16		
March	12	24	28	1	20	85
April	34	68	75	14	30	221
May	19	74	41	33	12	179
June	4	12	16			
Totals	65	255	245	72	62	699

*Not available, the journal begins in March 1893.

The distribution of type of animal purchased or sold was not random across months. Veal entries appear in March through May and only rarely in June. Entries for chicks, hens, and turkeys were recorded during the fall. As one would expect, the turkeys are prepared in October, November, and December. Substantial dealings in eggs commence in the spring of 1885.

INSIGHTS TO THE LOCAL ECONOMY AND SOCIETY

Occupations: According to the U.S. census of 1880, Hersey reported his occupation as a farmer and trader. The *Maine Register*, an annual publication reporting on the merchants, manufacturers, and town officials of all Maine cities, towns, and villages, lists Amos' father, E.A. Hersey, from 1876–1878 as a “Groceries and Meat” merchant. “Amos K. Hersey, Groceries and Meat” replaces his father's listing in 1879. The description is simplified to “Meat Merchant” in 1883. Hersey's final appearance in the *Maine Register* is in 1888. This time frame roughly corresponds to that covered by the entries in the journal regarding transactions in meat.

However, as was the case with many Pembroke residents, Hersey probably pursued more than one occupation. The census, in fact, obscures the richness and variety of peoples' lives because it limited their answers to one occupation rather than the many that most, in fact, practiced. For example, a contemporary Pembroke resident and diarist, Willis Carter, was one of Hersey's suppliers.⁶ He reported his occupation as teacher [U.S. Department of the Census, 1880; Colby, 1881; Bridges, 1996], but his diaries show that he supplemented his earnings, in part, by selling some produce and wood. He also performed small jobs for the town (clearing roads, for example), printed cards for sale, and later when the sardine factories opened, occasionally worked in them.

It may also be true of Hersey that he supplemented his income in a variety of ways. From the journal, it is clear that the business was much more active in some months than in others. In particular, there are no entries in the summer months. Like other local inhabitants he probably fished at this time of year.⁷ However, the journal contains no records of this or any other supplemental activities in which Hersey was engaged. This is despite the fact that he was involved in farming.

⁶Willis Carter Diaries — see footnote 5.

⁷We are grateful to local historian, Rebecca Hobart, for this suggestion.

Some farming contributed to almost every household in Pembroke. The 1880 *Census Schedules for Agriculture* reported the size of each farm, as well as the acreage devoted to each crop and the number of each type of animal. Hersey's supplier/neighbors and Hersey himself appear herein. The farms were small, most far less than 100 acres, and the productive acreage is minimal. They were clearly subsistence farms (see Table 2). Hersey planted 1/16 of an acre of wheat and two acres of potatoes. His neighbors' farms were similar — they rarely planted more than two acres of any one crop. Potatoes, wheat, oats, barley, and pulse (legume-type plants) represented the entire spectrum of reported crops. The census did not ask about vegetables, fruit, and berries. Hersey owned only, but typically, three head of cattle: two for milk and one identified as "other" — undoubtedly an ox. Most farmers owned a few head of cattle, some poultry, and sheep. Most had forested acreage from which ten to fifteen cords of wood were cut and sold annually [U.S. Department of the Census, 1880]. A family would keep a cellar full of vegetables, meat in a cold closet, flour by the barrel, 100 pounds of sugar, raisins in large wooden boxes, pickles, and preserves. Fresh milk, cream, butter, and eggs were relatively abundant [Bridges, 1997, p. 89].

TABLE 2
Selected Pembroke Farms: 1880 U.S. Census

Owner	Acreage			Milk Cows		Calves Born	Calves Sold	Other Cattle		Sheep	Lambs
	Tilled	Meadows	Forest								
J.H.Coggins	7	33	40	2	2	2	0	20	23		
P.W. Hersey	3	39	0	2	2	2	0	0	0		
A.K. Hersey	3	32	1	3	2	0	0	0	0		
W. Carter	2	10	80	2	0	0	2	0	0		
Acreage devoted to:											
Poultry	Eggs	Barley	Oats	Wheat	Pulse	Potatoes	Cords of Wood				
42	550	1	2	1/4	1/2	2	10				
25	380	0	0	1/2	1 1/4	1 1/4	0				
0	0	0	0	1/16	0	2	15				
0	0	0	2	2	0	2	15				

Local Business Relations: The journal offers insights to the business environment in which Hersey operated. The town of Pembroke, in Washington County, Maine is located "Down East,"⁸ a few miles from Eastport, the easternmost town in the U.S., and the U.S. border with Canada [Maine Register, 1996].

⁸"Down East" is a term coined by sailors in reference to the winds that blew in an easterly direction from Boston to Nova Scotia.

By contrast, in 1881, there were at least ten general stores on both sides of Pembroke, carrying dry goods, groceries, tobacco, clothing, boots and shoes, stationery, and various other sundries. It is likely that Hersey sold his meat to at least some of these general stores although the journal does not record the buyers' names. According to a map of the town, Hersey may have had his own store [Colby, 1881] out of which he sold the meat. This is not certain because the 1881 map is marked "A. Hersey, shop," and there was more than one A. Hersey living in Pembroke at the time.

Besides the general stores, Pembroke of the late 19th century also boasted milliners and tailors; a drug store; a dealer in hides, calf, and woolskins; a wool-pulling factory; and a number of wheelwrights and smiths. There were manufacturers of brick, furniture, organs, and various wood products (staves, shingles, etc.). The Pembroke Iron Company manufactured nails, bar iron, and hinge plates. Other small manufacturers included two shipbuilders, a carriage and sleigh maker, a harness maker, a sail maker, a cooperage, a block and plank maker, and a couple of saw and grist mills [Colby 1881; *Maine Register*, 1880]. The population supporting these activities was around 2,500 (it is 850 today). It is likely that the town's thriving businesses were also patronized by the people living in the nearby villages and by those sailing in and out of the small harbor.

The journal suggests that most of the people from whom Hersey purchased his products were Pembroke, but quite a few also traveled in from the surrounding towns and villages of Perry, Edmunds, Meddybemps, Dennysville, Charlotte, Eastport, Lubec, and Robbinston. Another interesting but perhaps not surprising discovery about this journal is that, all the people listed in it appear as the head of household in the U.S. census. Although it is unlikely that the head of household would *always* be the person who brought in the goods to Hersey, he nevertheless recorded the transaction in that person's name.

Usually one purchaser brought in a single calf. However, there are several examples of one person bringing in quite a few calves. Carson, of Robbinston, arrived every two weeks with five to seven calves. It seems likely that Carson was doing a favor for his neighbors. Each calf was treated as a separate line item, a separate transaction, but Hersey usually ignored the individual weights of the calves (although the weights do appear in his journal), averaged them, and assigned a cost to each calf as if each weighed the same. He let Carson worry about properly reimbursing neighbors in Robbinston. The sales prices for these

calves did vary, suggesting that the sales were individual while the purchase was group.

Major Industries: During the 19th century, one of Maine's primary industries was shipbuilding; nearly every coastal town had a shipyard. By 1830, Maine was the leading shipbuilding state in the nation [Greenan, 1958, p. 123]. Pembroke once had as many as five to seven shipyards and produced at least 100 wooden, ocean-going vessels between 1832 and 1870 [Wilder, 1932, pp. 3, 21, 33]. Indeed, in 1854, Pembroke was listed twelfth out of 77 Maine locales in ship tonnage produced [*Maine Register*, 1855]. Shipbuilding and its ancillary businesses (sail and block and tackle production, as well as manning the ships) supported, at least in part, many of the people of Pembroke.

Later entries in the Hersey journal attest to the significance of ship-related businesses. Hersey records the costs of building a boat along with the eventual sales price (well below the cost, another of his "losses in life"). A later page records costs associated with "an unprofitable trip." In addition, many of the people named in the Hersey journal were associated with the shipping industry. In the 1880 census they identified themselves as sailors, shipbuilders, ship carpenters, teamsters, wharfingers (operators or managers of the wharf), inspectors of customs, spar makers, seamen, and sea captains. Since those named in the journal sold animals to Hersey, they were not only seamen but part-time farmers as well.

Economic Decline: Maine in general suffered during the 1880s. The total number of farms decreased by 3.6%, the acres of improved land in farms by 12.6%, and the monetary value of farms by 3.9%. The production of wheat decreased by 88% and corn by 60%. Oats and hay did buck the trend; production of these commodities increased by 62% and 7.6% respectively [*Historical Statistics*, 1993]. It is not possible to find prices specifically for Maine products but for the U.S. as a whole prices for farm products, foods, wool, and hides and leather products all declined during the decade by 11%, 10%, 30%, and 34% respectively [*Historical Statistics*, 1975]. This period was especially difficult for Mainers whose problems were exacerbated by the decline of shipping and logging. The shipping industry was doomed by new technologies. Steam replaced sail,⁹ larger steel

⁹By 1868, there were steamboats serving all Maine coastal towns from Portland to Machiasport (very near Pembroke) [Greenan, 1958, p. 123].

vessels replaced wooden ships, railroads arrived, and lumber near waterways was exhausted. Without the raw materials needed to construct the new types of ships, Maine's contribution to shipping was to end.¹⁰ However, the death of the industry was protracted, and Pembroke still operated two yards in 1881. By 1900, these had also gone out of business [Greenan, 1958, p. 124].

Of all the areas on the Maine coast, none suffered more than those furthest north with the harshest winters, no usable natural resources, and poor soil. Pembroke and her neighbors were included in this group. During the period covered by Hersey's journal, the population of Pembroke declined rapidly. In 1880, the population was 2,324 [U.S. Department of the Census, 1880], but by the next count, in 1890, it had dropped to 1,514, a 35% decrease which may well have put a strain on a small business [*Maine Register*, 1881]. This decline in population is reflected in Hersey's journal. The number of transactions declined perilously as Table 1 clearly demonstrates.

The decline of the state and the local region are reflected in Hersey's journal in ways other than simply the reduction in the number of transactions.

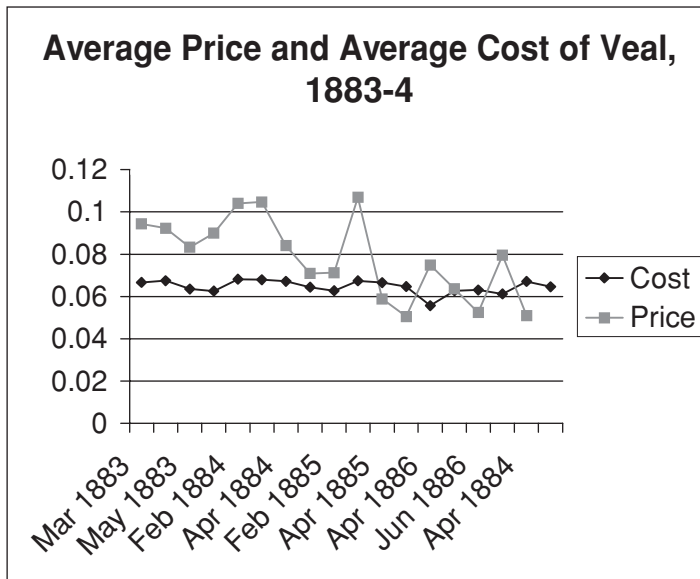
While the absence of a cash or day book for tracking cash flows makes it impossible to know exactly the degree to which Hersey profited or lost on each transaction, the trend toward decline is obvious. Ignoring errors and omissions, many of which do occur, there was a steep decline in his financial situation. The decline was most clearly seen in the veal transactions. The data suggest an increasing incidence of losses on transactions as the years progress. As mentioned earlier one also observes a greater carelessness in keeping the journal.

Over time, Hersey increasingly lost money on veal. Tracking cost against price for 18 consecutive but not contiguous months of transactions from 1883 to 1887 (see Figure 1) we see that, while selling prices were highly variable, they remained above cost for about 10½ months. After that, until the cessation of business activities, prices fell below cost about half the period. What is intriguing is that cost, the price paid to suppliers, was almost fixed over the period (at least when averaged by month). Sales prices were more variable. It seems that Hersey tried to keep prices stable for his neighbors/suppliers, but was not accorded the same courtesy by his buyers. For example, for the 61

¹⁰Bath Iron Works is the only shipyard that has survived. It builds destroyers.

veal transactions of April 1884, the average sales price per pound was 8.4 cents with a standard deviation of .015, while the average cost per pound was 6.7 cents with a standard deviation of .008. In April 1885, the average sales price per pound (70 transactions) was 5.9 cents with a standard deviation of .015, while the average cost per pound was still 6.7 cents but with a standard deviation of .015. Although many loss-making transactions occurred at this point, Hersey may still have made a profit from trading in skin. However, even the prices paid for skins dropped dramatically. In 1883 and 1884, the prices tended to be \$1.25, \$1.37, or \$1.40 per skin. In 1885, the price dropped to \$1, sometimes as low as \$.58 or to nothing at all. The prices occasionally rallied, but in 1886, they stood at \$.80, \$.75, or, again, nothing at all.

FIGURE 1



Another problem for Hersey arose during this period. Beginning in 1886, the *Maine Register* mentioned the existence of another local meat merchant. By 1888, there were four. In 1889, none were listed (an error?), but in 1890, one of the meat merchants who had appeared in the 1888 *Register* returned, now as a merchant of "Stoves, Tinware, Hides and Skins." That person may no longer have been a meat merchant. In fact, it is only the

reference to hides and skins that suggest such a possibility. Perhaps the meat business had been transferred, at least in this town, to the general store or elsewhere. However, one can find meat merchants in other Maine towns during this period.

On the basis of the evidence available it would appear that Hersey succumbed to the triple problems of competition, a declining consumer market, and a general recession. One should recall that of the four meat merchants listed in 1888, only one survived into 1890, the one who had apparently diversified into other products.

CONCLUSIONS

Given the considerable array of venues in which accounting is performed accounting research need not be limited to the examination of large businesses. Today, as in the past, accounting impacts on and is impacted by, the business and personal lives of those who practice the discipline. An investigation of the relationships between accounting, the general economy, the personal lives of entrepreneurs and others who use accounting, and their relationships with suppliers and customers can only enrich our understanding and appreciation of the field.

The journal of Amos Hersey serves as a springboard into the life and times of an individual, his business and the local economy in which he operated. This fairly simple accounting record provokes many wider questions. Who were the suppliers? Who were the buyers? What caused the decline of this business? The search for answers to such questions revealed other features of contemporary society such as the existence of multiple occupations and the adaptability of the local populace to economic change. This was especially the case with Hersey. When his business failed, he tried other ventures and when they too proved unsatisfactory, he and his wife left the area.

Though not a trained accountant, Hersey did display an understanding of bookkeeping and knew the value of keeping very detailed records. We observe that he took accounting for work very seriously indeed, despite the fact that there were no outsiders waiting to scrutinize the results of his operations. Though this journal is not in a traditional format, it answered his information needs. Hersey either learned bookkeeping from his father or had adapted from the many bookkeeping manuals available a method satisfactory for him. For us, the researchers, this accounting offers an entree into a local community of the late nineteenth century.

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